

The Value of Evidence-Based Medicine (Literature Review)

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Abstract The article presents a review of the literature on the importance of evidence-based medicine. An analysis of the literature highlights the importance of the economic structure of evidence-based medicine to optimize costs and improve treatment outcomes, making it a key component of modern medicine.

Keywords Evidence-based medicine, Doctors, Problem, Importance, Effect

1. Introduction

Modern medicine is rapidly evolving, providing doctors with more and more opportunities for diagnosing and treating various diseases. However, with the vast amount of available information, the question arises: which of these methods are truly effective and safe for patients? In response to this challenge, a practice known as evidence-based medicine (EBM) has emerged in medical practice. Evidence-based medicine plays a key role in ensuring quality, scientifically-based treatment, thereby providing higher standards of medical care.

2. What is Evidence-Based Medicine?

Evidence-based medicine is a method based on using the best available scientific data to make clinical decisions. It includes three main components:

1. **The best available scientific evidence** - data obtained from high-quality clinical studies and systematic reviews.
2. **The clinical experience of the physician** - professional knowledge and skills acquired by the doctor during their practical work.
3. **The preferences and values of the patient** - considering the individual needs, preferences, and characteristics of the patient when choosing treatment methods.

This approach allows for the integration of research findings into daily medical practice, making it more effective and patient-centered.

3. The Value of Evidence-Based Medicine

1. Improving the quality of medical care.

Evidence-based medicine promotes the use of the most effective and safe treatment methods, which directly affects the quality of medical care. Studies show that the application of evidence-based medicine can reduce the number of medical errors by 30-40% and increase overall patient survival rates by 20-25% [1]. For example, a 2019 meta-analysis involving 15 studies with over 1 million patients found that using evidence-based recommendations reduced mortality from myocardial infarction by 25% compared to traditional treatment methods [2].

2. Reducing healthcare costs

Using evidence-based medicine helps reduce treatment costs by eliminating ineffective or unnecessary medical interventions. According to a report from the World Health Organization (WHO), the implementation of evidence-based medicine has allowed high-income countries to reduce healthcare costs by 10-20% [3]. Cost savings are achieved through the use of cheaper but effective treatment methods, the elimination of unnecessary procedures, and shorter hospital stays [4]. For example, a study conducted in the United States showed that using evidence-based medicine in treating patients with heart failure reduced overall costs by 12% by reducing hospitalizations and using more appropriate treatment methods [5].

3. Personalized approach to treatment

Considering the preferences and values of the patient is an important aspect of evidence-based medicine. This approach allows for the selection of the most appropriate treatment for each patient, taking into account their individual characteristics and life circumstances. Studies show that patient satisfaction with evidence-based treatment is 15-20% higher compared to patients who received standard treatment without considering their preferences [6]. This personalized approach also helps reduce the number of follow-up visits and readmissions, further reducing healthcare costs [7].

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4. **Continuous updating of doctors' knowledge and skills** Evidence-based medicine requires doctors to continually learn and update their knowledge according to the latest scientific advances. This contributes to the professional growth of medical professionals and maintains high standards of medical care. According to surveys, more than 85% of doctors who actively use evidence-based medicine report improvements in their professional skills and increased confidence in the correctness of the decisions made [8]. This also leads to lower training and continuing education costs, as doctors are already working with current and verified data [9].

4. The Economic Aspect of Evidence-Based Medicine

The economic efficiency of evidence-based medicine is one of the key arguments in its favor. Implementing evidence-based methods allows not only for improved treatment outcomes but also for reduced healthcare costs.

1. **Reducing treatment costs** One of the most significant aspects is the savings on unnecessary procedures and medications. In the United States, according to estimates by the Centers for Disease Control and Prevention (CDC), approximately \$210 billion is spent annually on procedures and medications that lack sufficient scientific justification [10]. The application of evidence-based medicine allows these costs to be reduced by directing funds to more effective and justified treatment methods [11].
2. **Shortening hospital stays** Studies show that patients receiving treatment based on evidence-based medicine spend on average 15-20% less time in the hospital compared to patients treated according to traditional schemes [12]. This reduces the costs of maintaining patients in hospitals and speeds up their recovery, which also has economic benefits [13].
3. **Reducing readmission rates** The use of evidence-based treatment methods reduces the likelihood of complications and relapses, which, in turn, reduces the need for readmissions. For example, a study conducted in the United Kingdom showed that implementing evidence-based medicine reduced readmission rates by 18%, resulting in savings of over 500 million pounds sterling per year [14].
4. **Optimizing the use of medical resources** Evidence-based medicine promotes the more rational use of medical resources, such as equipment, medications, and medical personnel. For example, using evidence-based diagnostic and treatment protocols reduces the number of unnecessary diagnostic tests, saving money and time, and also reduces the workload on medical staff [15].

5. Conclusions

Evidence-based medicine is a powerful tool that improves the quality of medical care and ensures more effective and safer treatment for patients. Its value lies not only in improving clinical outcomes but also in significantly reducing healthcare costs. In the context of limited resources and rising healthcare costs, evidence-based medicine is becoming an integral part of the sustainable development of medical systems worldwide. The economic aspect of evidence-based medicine emphasizes its importance for optimizing costs and improving treatment outcomes, making it a key component of modern medicine.

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